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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NGUYEN, LEE	

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/834,024	SANDER ET AL.	
	Examiner	Art Unit	
	LEE NGUYEN	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *03/25/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *28-47* is/are withdrawn from consideration.

5)☒ Claim(s) *21-25* is/are allowed.

6)☒ Claim(s) *1-4,11-15,20,26 and 27* is/are rejected.

7)☒ Claim(s) *5-10 and 16-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the communication filed 03/25/2005. Claims 28-47 are withdrawn from further consideration.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 11-15, 20, and 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Raab (US 6,256,482).

Regarding claim 1, Raab teaches a method of producing an amplitude modulated communications signal using an amplifier having at least one stage including a three-terminal active device 44 (fig. 6) having a signal input terminal 43A, a signal output terminal 45, and a power supply input terminal 42A, the method comprising: applying a carrier signal 43A to

the signal input terminal; and applying a power supply input signal 42A to the power supply input terminal, the power supply input signal being derived at least in part from an amplitude modulation signal 42, wherein the one stage produces the amplitude modulated communications signal 48 in response to the carrier signal 43A and the amplitude modulation signal 42A, a signal magnitude of the amplitude modulated communications signal 48 at a given instant inherently being dependent on both a signal magnitude of the carrier signal 43A and to a signal magnitude of the power supply input signal 42A (see MPEP 2114, In re Schreiber, 44 USPQ2d 1429 (Fed, Cir. 1997, and In re Swinehart, 169 USPQ 226 (CCPA 1971).

Regarding claim 2, Raab further teaches that the carrier signal is angle modulated (col. 4, 53).

Regarding claim 3, Raab also teaches that an average output power of the amplitude modulated communications signal is determined at least in part by a signal magnitude of the carrier signal, and amplitude modulation of the amplitude modulated communications signal is separately determined by

the amplitude modulation signal (col. 6, 32-34, 40-42, 50-51).

Regarding claim 4, Raab also teaches that the power supply input signal is derived from both the amplitude modulation signal and a power level control signal (numeral 42, fig. 6).

Regarding claim 11, Raab also teaches that a final amplifier stage 61, 81 (figs. 7, 9) is coupled to an output network (not shown at 63), and further comprising maintaining a single configuration of the load network across lowest power and highest power operation (col. 6, 26-40).

Regarding claim 12, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 13, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 14, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 15, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 20, the claim is interpreted and rejected for the same reason as set forth in claim 11.

Regarding claim 26, Raab teaches a communications apparatus (figs. 6, 9), comprising: an amplitude varying circuit 80 receiving a constant-envelope carrier signal from 79 and producing a modified constant-envelope carrier signal (to 81) in response to a power control signal V(DDRF); and an amplification chain including at least one stage 81, the amplification chain 81 configured to receive the modified constant-envelope carrier signal (from 80) and an amplitude modulation signal (from 74) and amplifying the modified constant-envelope carrier signal to produce a communications signal having amplitude modulation and having inherently an average output power that depends on a signal magnitude of the modified constant-envelope carrier signal 83, see 46, 48, fig. 6 (see MPEP 2114, In re Schreiber, 44 USPQ2d 1429 (Fed, Cir. 1997, and In re Swinehart, 169

USPQ 226 (CCPA 1971).

Regarding claim 27, the claim is interpreted and rejected for the same reason as set forth in claim 26.

Allowable Subject Matter

3. Claims 5-10, 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 5, 16, the prior art of record fails to teach or suggest controlling the signal magnitude of the carrier signal using an amplitude varying circuit.

4. Claims 21-25 are allowed.

Regarding claim 21, the prior art of record fails to teach passing the carrier signal through an amplitude varying block, and controlling the amplitude varying block, taking into account any known non-linearity of the same, to produce a signal input related to a desired average power of the

communications signal, and whereby amplitude modulation is achieved independently of the amplitude varying block.

Response to Arguments

5. Applicant's arguments filed 3/25/2005 have been fully considered but they are not persuasive.

In the remarks, Applicant contends that Raab does not teach producing an amplitude modulation communications signal having a magnitude that is dependent on both a signal magnitude of a carrier signal and a signal magnitude of a power supply input signal. The RF amplifier 44 is a switch-mode amplifier, which generates an output signal 45 having a level that depends only on the power supply VDDRF signal applied to the power supply input of the amplifier 44. The RF output 45 of switch-mode amplifier 44 does not depend on the magnitude of signal 43A as applied to claims 1 and 12, and that Raab does not disclose an amplification chain that is configured to receive a modified constant-envelope carrier signal to produce a communications signal having amplitude modulation and having

an average output power proportional to a signal level of the modified constant-envelope carrier signal as applied to claim 26.

In response, while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. In this case, the RF output 45 of switch-mode amplifier 44 inherently depends on the magnitude of signal 43A and the VDDRF signal because the prior art has the same structure as required by the claim and that the signal 43A and VDDRF also have the respective magnitude as shown in figure 6.

This response also applies to the rejection of independent claims 12 and 26.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a

first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is (571)-272-7854. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/19/05

LEE NGUYEN
Primary Examiner
Art Unit 2682